

FIG. 1

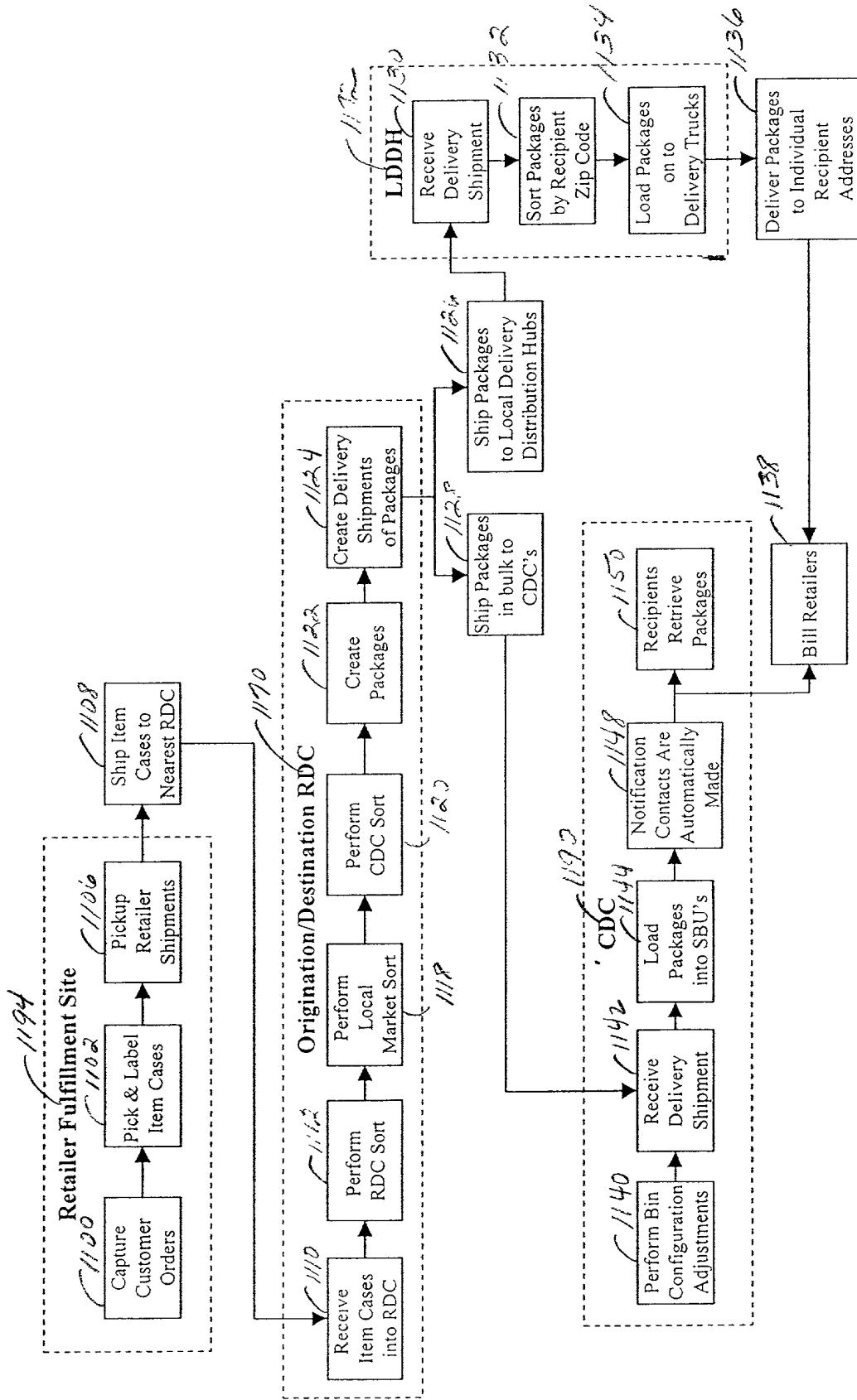


FIG. 1A

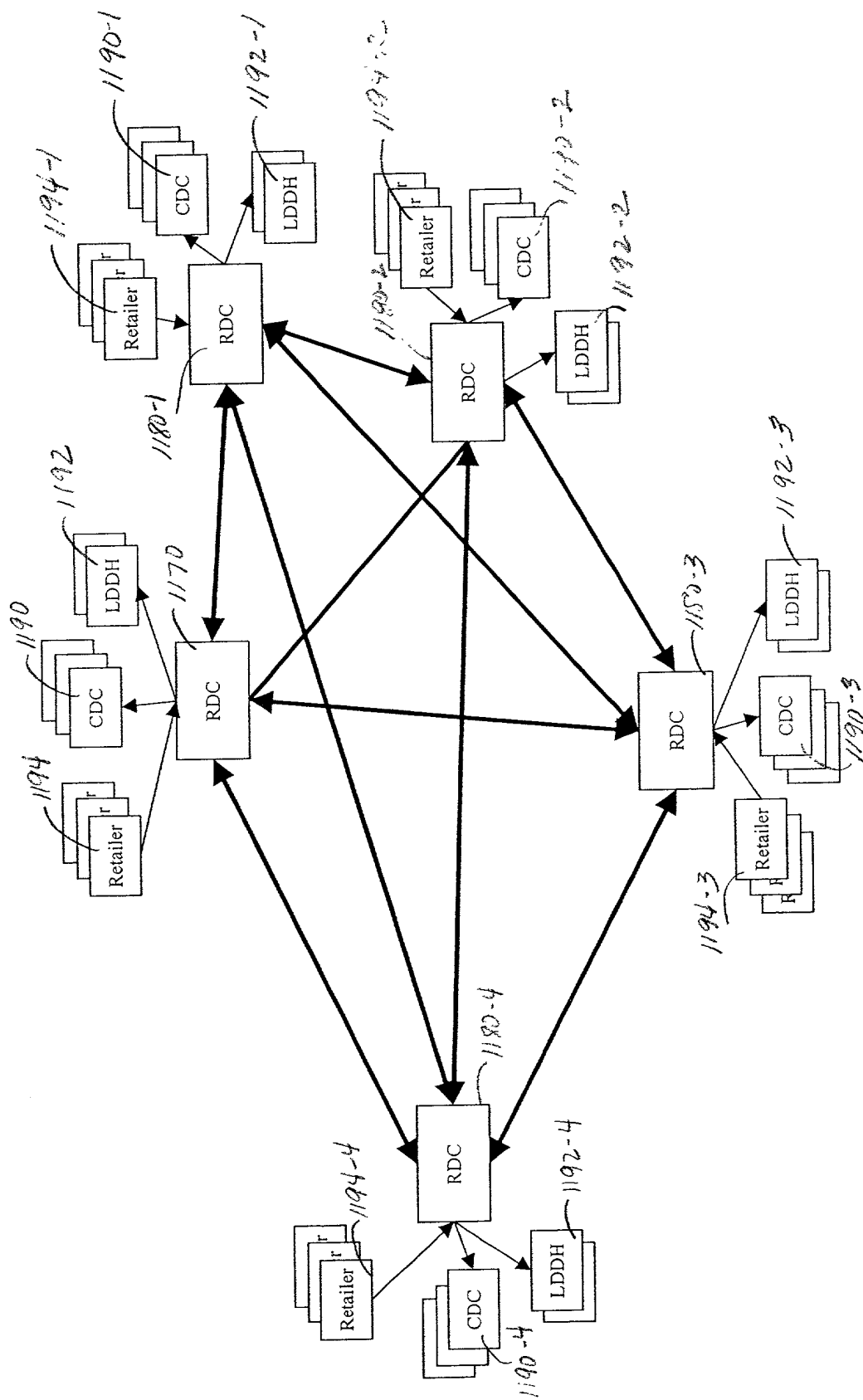


FIG. 2

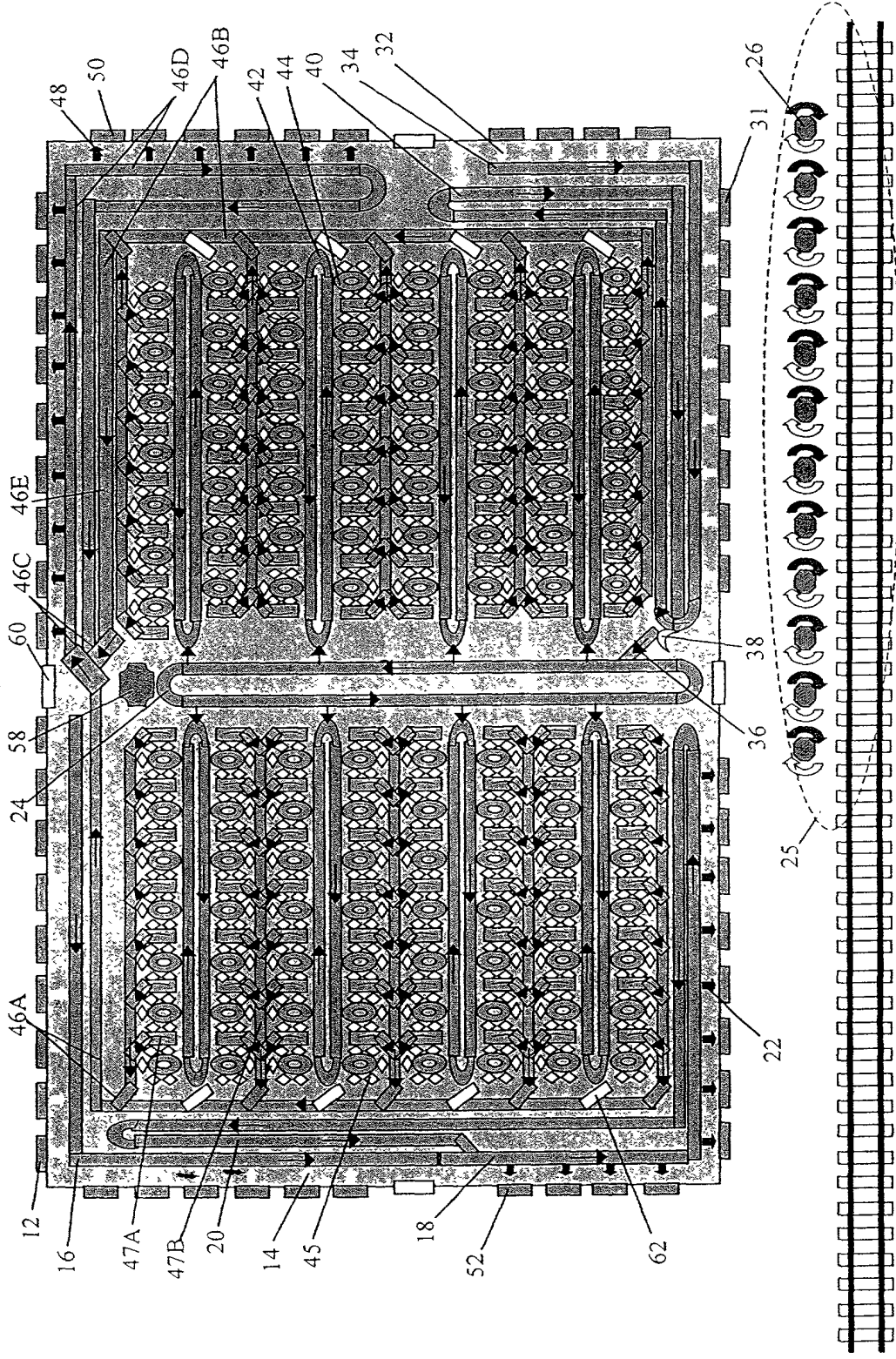


FIG 3

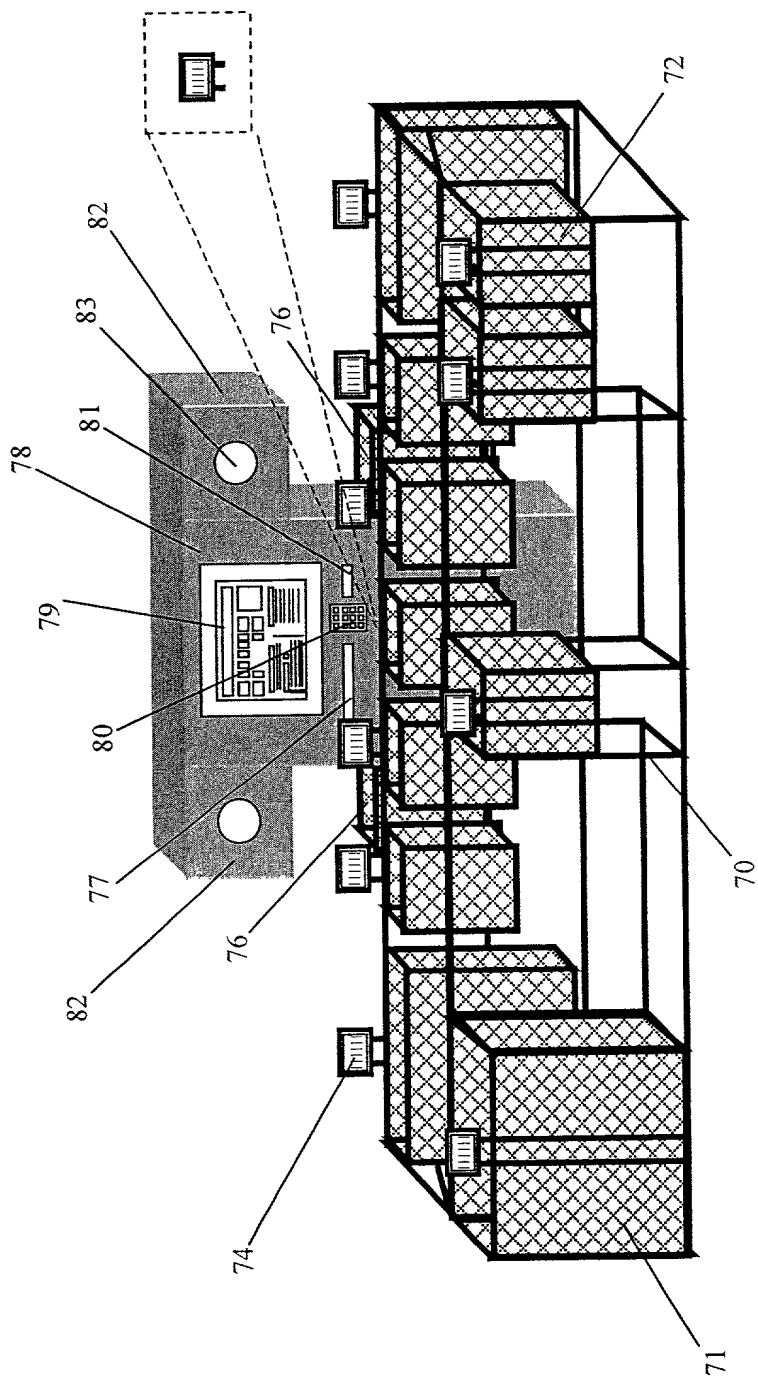


FIG 4

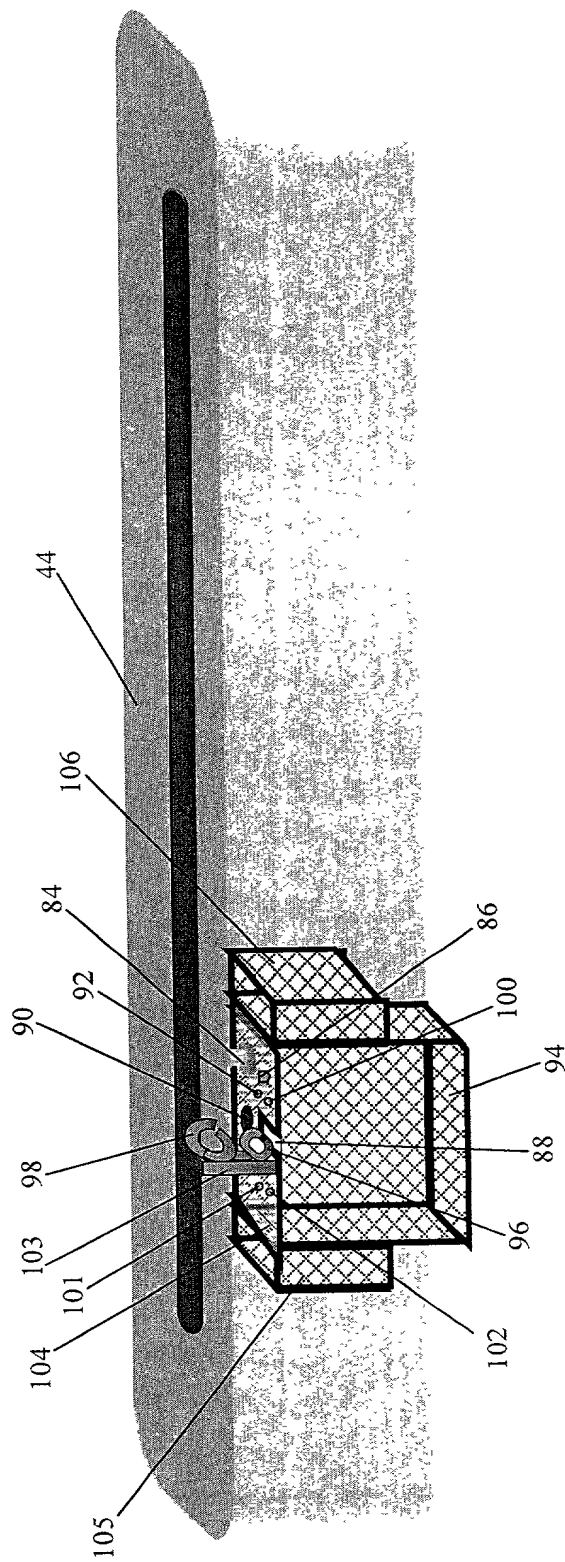


FIG 5

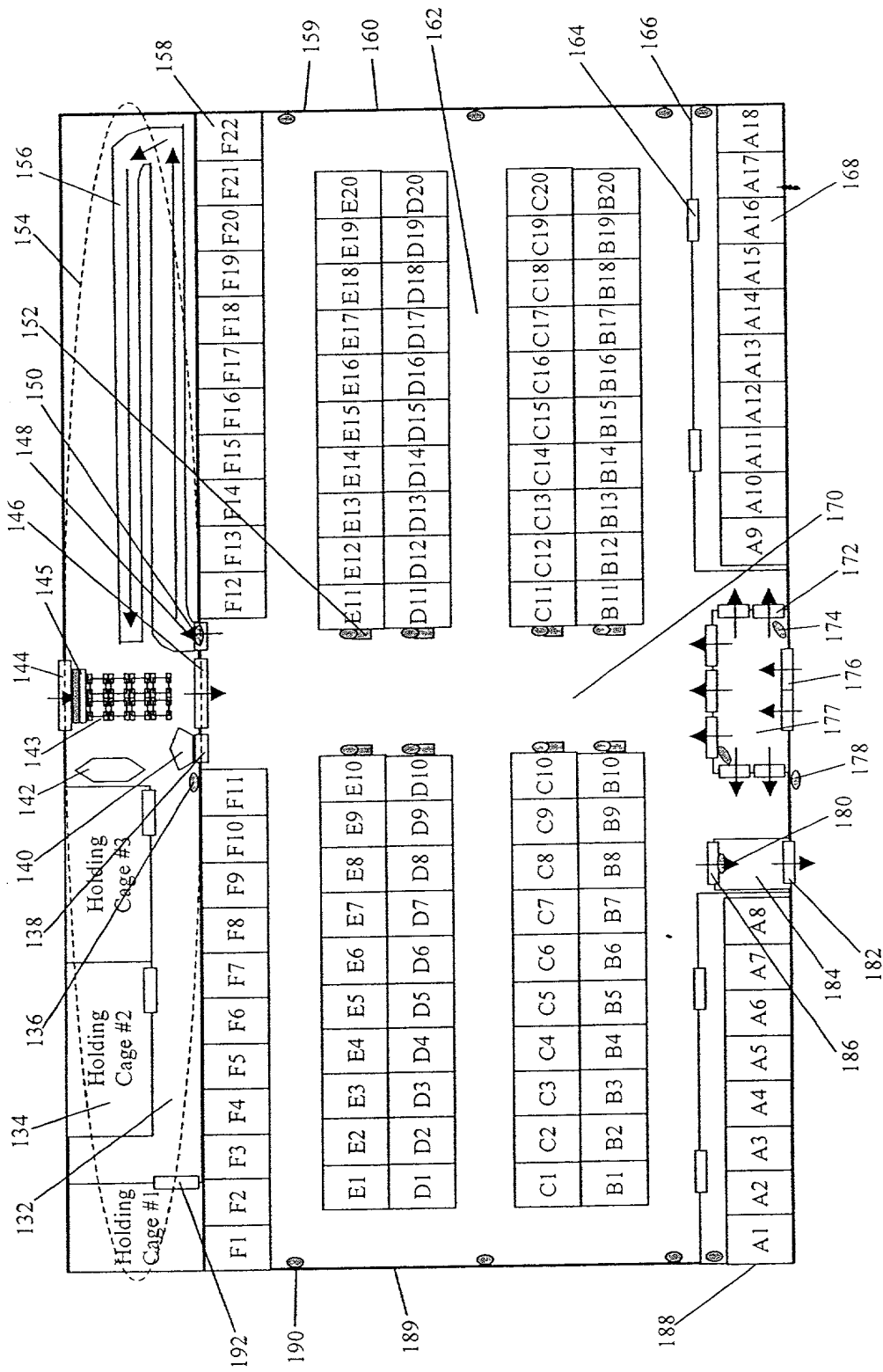


FIG 6

Figure 1 is a schematic diagram of a handheld electronic device 110. The device includes a keypad 108 with numeric keys 1 through 9, 0, *, and #. The keypad is divided into sections 109 and 112. The device also features a display screen 114. The screen displays a 'Current Case' screen 116, which includes fields for Case Id 126, Retailer 128, SKU 130, and Remaining Qty 132. The screen also displays a 'Current Package' screen 120, which includes fields for Retailer 128, SKU 130, and Qty 132. The screen further displays a 'Close Out List' screen 124, which includes a table of items with columns for Bag, Retailer, SKU, and Qty.

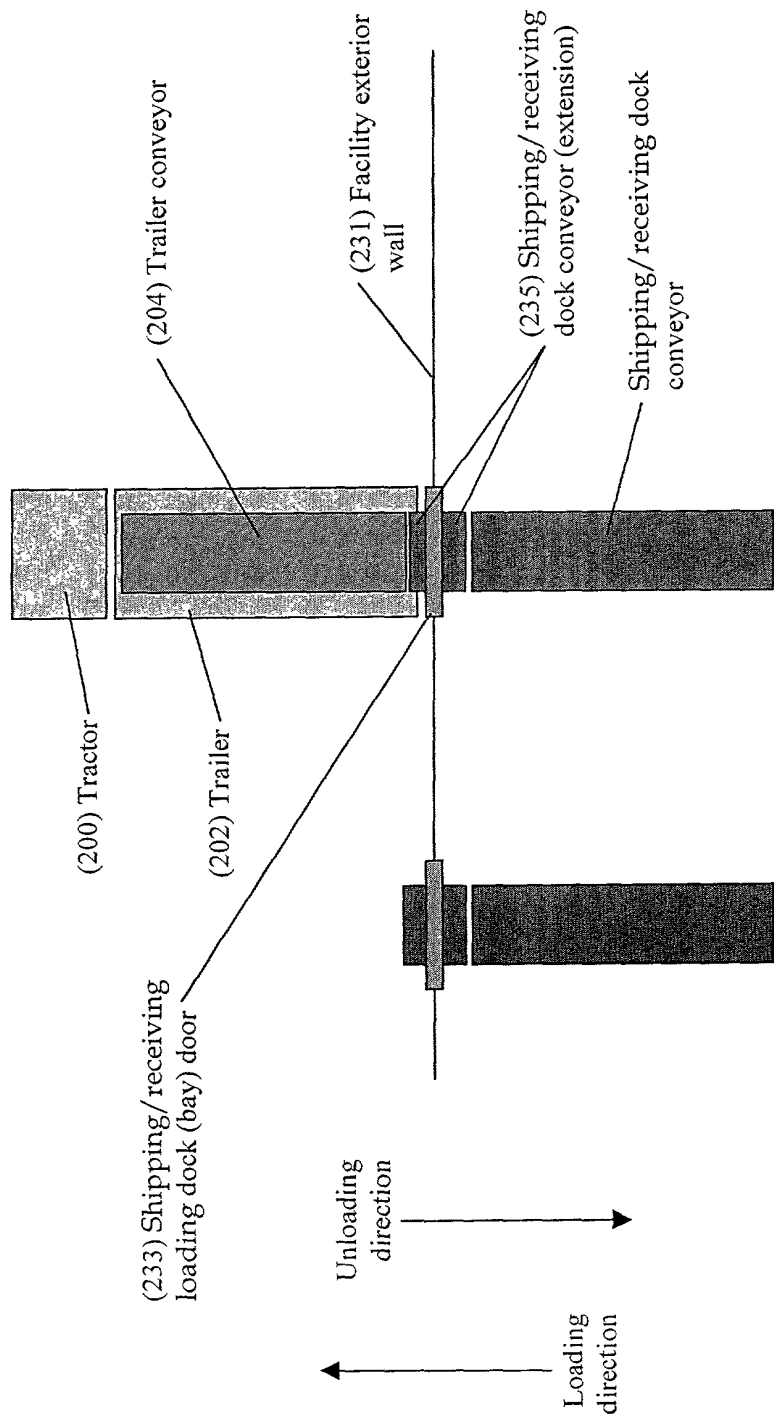


FIG 8

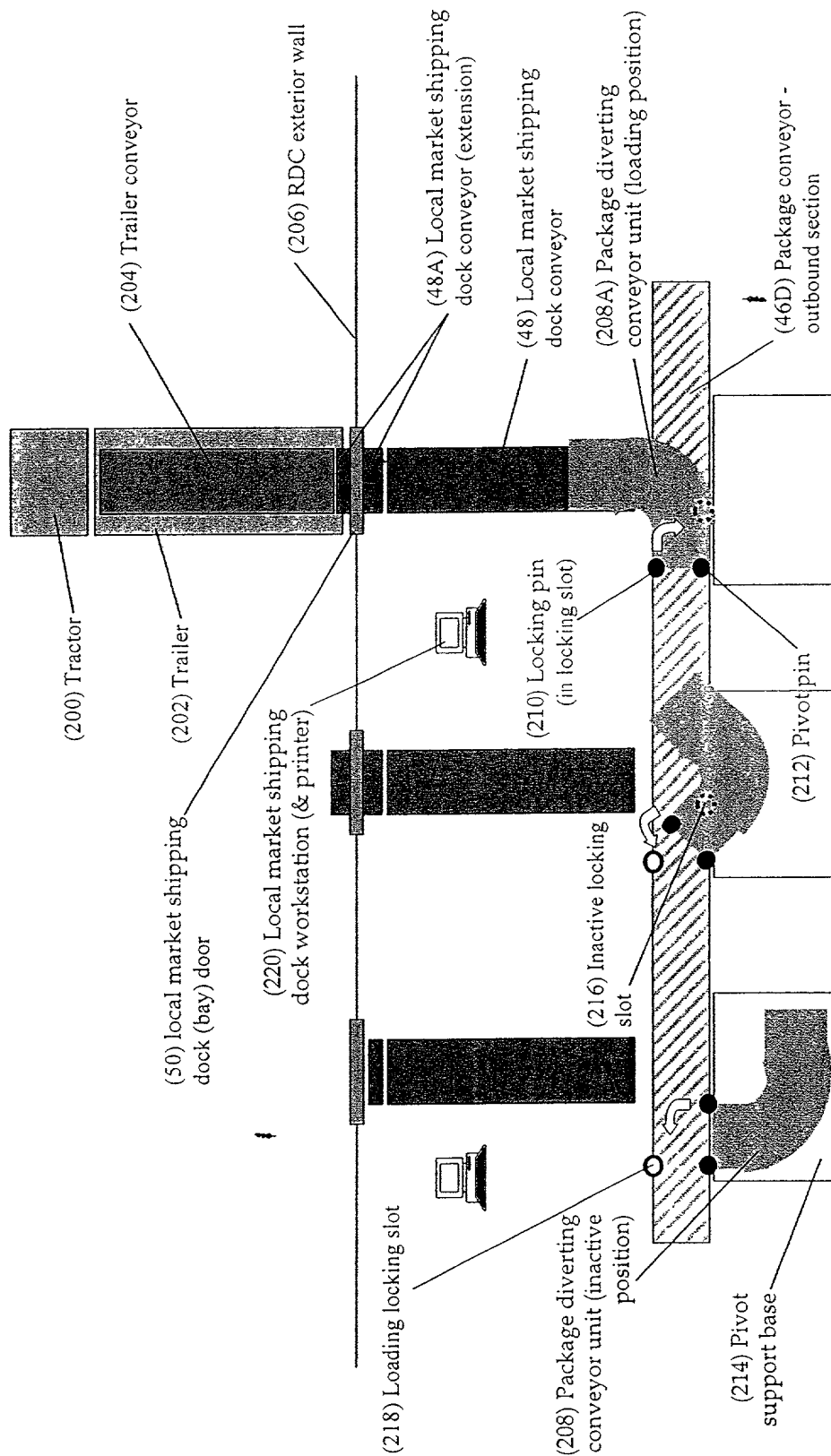


FIG 8A

Order Header table

Order Id	Status	ePD Shipper Id	ePD Retailer Id	Retailer Order Number	Delivery Type	Customer Id	Ordering Customer Id	Order Date/Time	RDC Id	Local Market Id	CDC Id	Partial Ship	Retailer Message-Order Header	Retailer Message-Packing List	Delivery Name	Delivery Address 1	Delivery Address 2	Delivery City	Delivery State	Delivery Zip
amaz0001-18362308-5-080300-001	open	amaz0001	amaz0001	987654321	ePD	183-62-2085	183-62-2085	08-03-00 14:21:02	AT001	sfor	sfor-019	No	custom message (for order)	custom message (for retailer)						

Order Detail table

Order Id	Status	SKU	SKU Size	Temperature Code	Quantity	Retailer Shipment Id	RDC Shipment Id	Package Id	Case Id	Retailer Message-Order Detail	Notification Date/Time	Pickup Date/Time
amaz0001-18362308-5-080300-001	retailer dock	0123456789	small	standard	1	amaz0001-1080300-001	CH001-080300-00001	111221234-AT001-080400-001	123456	custom message (for order line item)	7/12/200 8:10:06 PM	7/13/200 5:43:25 PM

SKU data view

SKU	RDC Id	Quantity
01234567		214
89012345	AT001	

Case data view

SKU	RDC Id	Case Quantity	Item Quantity
01234567		3	11
89012345	AT001		

Case table

Case Id	Status	ePD Retailer Id	SKU	SKU Size	Temperature Code	Quantity	RDC Id	Partial/Mixed Flag	Pick Grouping Id	Retailer Shipment Id	RDC Shipment Id	Local Market Id	CDC Id
amaz0001-080300-123456	in RDC	amaz0001	01234567890	small	standard	16	ST-001	No	amaz0001-080300-PC001	amaz0001-080300-000001	CH001-080300-000001	sfor	sfor-019

Pick Grouping table

Pick Grouping Id	Retailer Shipment Id	Case Quantity
amaz0001-080300-PC001	amaz0001-080300-001	85

Retailer Shipment table

Retailer Shipment Id	ePD Status	ePD Retailer Id	ePD Shipper Id	Origin RDC Id	Retailer Employee Id	Trailer Id	Retailer Shipping Date/Time	Receiving Employee Id	Retailer Shipment Arrival Date/Time
amazon001-080300-001	in-transit	amazon001	epd	CI001	333-22-4444	t-detro-4321	08-03-00 12 15 35	121-34-6565	08-03-00 17 25 08

12/13

Retailer Shipment Receiving table

Retailer Shipment Id	Status	Employee Id	Trailer Id	ePD Shipper Id
amazon001-080300-001	replicated	121-34-6565	t-detro-4321	epd

12/14

RDC Shipment table

RDC Shipment Id	Status	ePD Shipper Id	Origin RDC Id	RDC Shipping Dock Id	RDC Shipment Prep Date/Time	RDC Shipment Trailer Date/Time	RDC Shipment Train Date/Time	RDC Shipment Arrival Date/Time	Desatiation RDC Id	Employee Id #1	Employee Id #2	Employee Id #3	Employee Id #4	Employee Id #5	Trailer Loading Employee Id	Trailer Loading Employee Id	Receiving Employee Id	Trailer Id	Carrier Id
CH001-080300-00001	received	epd	CH001	CH001-R01	08-03-00 22:21:35	08-04-00 07:01:43	08-04-00 07:22:43	08-04-00 12:30:39	AT001	333-22-4441	333-22-4442	333-22-4443			333-22-4442	220-22-0022	454-66-7887	mob99-1234	init-12345

12/16

RDC Shipment Receiving table

RDC Shipment Id	Status	ePD Shipper Id	Origin RDC Id	Desatiation RDC Id	Trailer Id	Receiving Employee Id	Case Id
CH001-080300-00001	new	epd	CH001	AT001	mob99-1234	454-66-7887	amazon001-080300-123456

12/18

Local Market Order List data view

Local Market Id	ePD Retailer Id	SKU	Quantity (Needed)
sflor	amazon001	0123456789	80

12/20

Local Market Case Inventory data view

Local Market Id	ePD Retailer Id	SKU	Quantity
sflor	amazon001	0123456789	48

12/22

CDC Order List data view

CDC Id	ePD Retailer Id	SKU	Quantity (Needed)
sflor-019	amazon001	0123456789	8

12/24

FI 9B

CDC Case Inventory data view

CDC Id	ePD Retailer Id	SKU	Quantity
sfor-019	amazon001	01234567	16

1226

Customer by SKU Order List data view

CDC Id	ePD Retailer Id	SKU	Customer Id	Temperature Code	SKU Size	Quantity (Needed)
sfor-019	amazon001	01234567	183-62-3085	standard	small	1

1228

SKU by Customer Order List data view

CDC Id	Customer Id	Temperature Code	SKU	SKU Size	Quantity (Needed)
sfor-019	amazon001	1234567	01234567890	small	1

1230

Open Package List data view

CDC Id	Packing Employee Id	Customer Id	Temperature Code	Package Holder Id	Package Size
sfor-019	323-55-608	183-62-3085	standard	080400-001	1

1232

Package table

Package Id	Status	Package Size	Temperature Code	ePD Shipper Id	Customer Id	RDC Id	CDC Id	Packing Employee Id	Package Bag Holder Id	Delivery Shipment Id
111221234-4-	closed	1 standard	epd	183-62-3085	AT001-080400-001	AT001	sfor-019	323-55-6084	sfor-019-PS01-BH01	CH001-001-080300

1234

Package Bag Holder table

Package Bag Holder Id	CDC Id	Status	Package Bag Size	Package Holder Id	Packing Employee Id
sfor-019-PS01-BH01	sfor-019	package	small	080400-001	323-55-6084

1236

FIG. 9C

Delivery Shipment table

Delivery Shipment Id	Status	ePD Shipment Id	RDC Id	CDC Id	Temperature Code	RDC Employee Id	Trailer Loading Employee Id	Trailer Id	Delivery Shipment Loading Date/Time	CDC Employee Id	Delivery Shipment Arrival Date/Time
CH001-sflor-019-080300-001	in-transit	epd	CI1001	sflor-019	standard	824-08-5432	333-22-4442	4321	08-04-00 16:41:20	333-22-4444	08-04-00 19:15:28

1238

RDC/CDC Package Inspection Report Header table

Report Id	Case Id	Retailer Id	SKU	Quantity Difference	RDC Id
RP1-082900-001	amaz001-080300-123456	amaz001	01234567890	-1	A1001

1240

RDC Package Inspection Report Detail table

Report Id	Quantity	Package Id	Package Status	Delivery Shipment Id	CDC Id
RP1-AT001-082900-001	3	080400-001	CDC processing	CH001-001	sflor-019

1242

CDC Package Inspection Report Detail table

Report Id	Quantity	Package Id	Package Status	Delivery Shipment Id	SBU Id	Master Bui Id	LDDH Delivery Vehicle Id	Inspection Authorization Code	Over Quantity Adjustment Code	Short Quantity Adjustment Code
CP1-AT001-082900-001	2	080400-001	CDC processing	CH001-001	A01	A01-01-0234				

1244

Retailer table

ePD Retailer Id	Retailer Description	Status	Connection Script	Comments	Local Market Id	Address 1	Address 2	City	State	Zip	Contact Number	Returns Facility Id	Returns Local Market Id	Returns Address 1	Returns Address 2	Returns City	Returns State	Returns Zip	Returns Contact Number
amaz001	Amazon.com - Midwest	active	"connection string"		chca	2609 W Burle Ave		Chicago	IL	25652	303-619-1823	amaz001	amaz001	1102 F Verde Highway		San Mateo	CA	90455	609-455-7219

Item Inventory table

ePD Retailer Id	SKU	Warehouse Location	Status	Quantity	Temperature Code
amaz001	012345678	01234567	shippable	60	standard

1248

1246

REF ID: A6607860

SKU table

SKU	Status	Standard Case	Quantity	SKU Size	Temperature Code	Product Description
01234567	active	20	small	standard	baseball cap	Miami Hurricanes

CDC table					
CDC Id	Status	CDC Description	Local Market Id	Type	CDC Server Connection Script
sfior-019	active	Commercial Blvd Location	sfior	CDC	"connection string"

Zip Code-CDC table

Zip	CDC #1	Distance	CDC #2	Distance #2	CDC #3	Distance #3	CDC #4	Distance #4	CDC #5	Distance #5
33333	sfior-019	0	sfior-018	5	sfior-020	5	sfior-021	10	sfior-017	11

Customer table

Customer Id	PIN	Last Name	First Name	CDC Preference	Previous CDC	Zip Code	Primary Contact Type	Primary Contact Address	Primary Contact Frequency	Primary Calling Window Start Time	Primary Calling Window End Time	Secondary Contact Type	Secondary Contact Frequency	Secondary Contact Address	Secondary Calling Window Start	Secondary Calling Window End Time	Dual Notification Indicator	ePD Account Balance
123-45-6789	9876	Seinfeld	Jerome	sfior-019	sfior-019	33333	phone	954-565-4444	24	8:00	21:00	e-mail		customer@mudspring.com			yes	0

RDC table

RDC Id	ePD Shipper Id	Status	RDC Server Connection Script	Address 1	Address 2	City	State	Zip
AT001	epd	active	"connection string"	1700 W Dolphin St		Atlanta	GA	22314

Shopper table

ePD Shipper Id	Status
epd	active

Packing Material Restocking Counter table

CDC Id	Type	Quantity
sfior-019	carpenter case	3

RDC-Local Market table

RDC Id	ePD Shipper Id	Local Market Id
AT001	epd	trah

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FIG. 9E

Item Return Header table

Item Return Id	Status	ePD Shipper Id	Customer Id	CDC Id	ePD Retailer Id	Returns Local Market Id	Item Return Creation Date/Time	CDC Reverse Shipment Id	Original Delivery Type	Original Order CDC Id	RDC Shipment Id	RDC Returns Shipment Id	Item Return Receipt Date/Time
amaz001-18362308												CI1001-120700-001	12-07-00 13 26 03
5-sflor019-122800-1R001	in CDC	epd	183-62-3085	sflor-019	amaz001	inch	12-06-00 8 11 19	sflor-019-120600-1R5001	CPD	sflor-019	CH001-120600-100001		

1266

Item Return Detail table

Item Return Id	SKU	Package Id	Order Id	Return Quantity	Return Reason Code	Return Reason Comment	Retailer Order Number	Order Date/Time
amaz001-18362308								
5-sflor019-122800-012345678	AT001-	111221234-	amaz001-					
1R001	901234567	1120400-001	120300-001	2	wrong size	item was the	987654321	12-03-00 14 23 02

1268

CDC Outbound Package table

CDC Outbound Id	Status	ePD Shipper Id	Shipping Customer Id	Delivery Type	Origination CDC Id	Recipient Customer Id	Destination CDC Id	RDC Id	Local Market Id	Temperature Code	Weight	Cost	Delivery Name	Delivery Address 1	Delivery Address 2 City	Delivery State	Delivery Zip
88822424																	
4-sflor-019-080400-001	in originatio n CDC	epd	111-22-1234	ePD	sflor-019	888-22-4244	ncali-005	A1001	sflor	standard	5.75	\$3.00					

1270

CDC Outbound Package table (continued)

Payment Method	Card Number	Payment Authorization	CDC Reverse Shipment Id	RDC Shipment Id	Package Size	Delivery Shipment Id	Notification Date/Time	Pickup Date/Time
credit card	214512346		sflor-019-120600-1R5001	CH001-120600-00001		CI1001-001 1 080300	12/12/2000 8 10 06 PM	12/13/2000 5 43 25 PM

CDC Reverse Shipment table

CDC Reverse Shipment Id	Status	CDC Id	ePD Shipper Id	Origination CDC Id	Shipment Creation Employee Id	Loading Employee Id	CDC Reverse Shipment Date/Time	Receiving Employee Id	CDC Reverse Shipment Arrival Date/Time
sflor-019-120600-1R5001	in transit	sflor-019	epd	CH001	333-22-4444	444-33-5555	12-06-00 12 15 35	121-34-6565	12-06-00 17 25 08

1274

FIG. 9F

REF ID: A6607860

RDC Returns Shipment table

RDC Returns Shipment Id	Status	epd Shipper Id	epd Retailer Id	RDC Id	Temperature Code	RDC Employee Id #1	RDC Employee Id #2	RDC Employee Id #3	RDC Employee Id #4	RDC Employee Id #5	Trailer Loading Employee Id	Trailer Id	RDC Returns Shipment Loading Date/Time	RDC Returns Shipment Arrival Date/Time
CI1001-120700-001	open	epd	amazon001	CH001	standard	824-08-5432						333-22-4444	08-04-00 16:41:20	08-04-00 19:15:28

1276

Order Header History table

Order Id	Status	epd Shipper Id	epd Retailer Id	Retailer Order Number	Delivery Type	Customer Id	Ordering Customer Id	Order Date/Time	RDC Id	Local Market Id	Partial Ship	Retailer Message-Order Header	Retailer Message-Packing List	Delivery Name	Delivery Address 1	Delivery Address 2	Delivery City	Delivery State	Delivery Zip
amazon001-18362308-5-080300-001	picked up	epd	amazon001	287554121	epd	183-62-3085	183-62-3085	08-03-00 14:23:02	AT001		No	custom message (for order)	custom message (for retailer)						

Order Detail History table

Order Id	Status	SKU	Temperature Code	Quantity	Retailer Shipment Id	RDC Shipment Id	Package Id	Case Id	Retailer Message-Order Detail	Notification Date/Time	Pickup Date/Time
amazon001-18362308-5-080300-001	picked up	0123456789	standard	small	amazon001-1080300-001	CH001-080300-00001	111221234-A1001-080300-080400-001	amazon001-080300-123456	custom message (for order line item)	7/12/2008 10:06 PM	7/13/2008 5:43:25 PM

1280

1278

FIG. 95

106120" E0601860

Bin Inventory table

Bin Id	SBU Id	Master Bin Id	Bin Size	Configuration Code	Temperature Code	Customer Id	PIN	Quick Code	Package Id	Status	Delivery Employee Id	ePD Shipper Id	Delivery Date/Time	Notification Date/Time
A01-01-0234	A01	01		3	234 standard	183-62-3085	9999		1111080400-001	notified	183-62-3085	ePackage Depot	7/12/2000 8 05 22 PM	7/12/2000 8 10 06 PM

1300

Bin Availability data view

Bin Size	Temperature Code	Quantity
3 standard		47

1301

Bin Reservation table

Bin Size	Temperature Code	ePD Shipper Id	Reservation Date/Time	Quantity	Trailer Loading Employee Id	Status
3 standard		ePackage Depot	7/11/20 11:33:04 PM	11	183-44-114288	new

1302

Reserved Bins data view

Bin Size	Temperature Code	Quantity
3 standard		19

1303

Pending Bin Configuration Adjustments table

Bin Size	Temperature Code	Quantity Adjustment
3 standard		-1

304

Unreserved Bins data view

Bin Size	Temperature Code	Quantity
3 standard		28

1305

16.10A

Notification Queue table

Custo mer Id	Record Date/ Time	Total Number of Packages	New Indicator	First Notificati on Date/Ti me	Last Primary Contact Date/ Time	Last Secondary Contact Date/Ti me	Next Primary Contact Date/Time	Next Secondary Contact Date/Time	Number of Primary Attempts	Number of Secondary Attempts	Next Contact Date/ Time
123-45- 6789	07/12/2000 8:06 22 PM	1	yes	null	null	null	null	null	0	0	null

1311

Package Pickup table

CDC Id	Bin Id	SBU Id	Master Bin Id	Configur ation Code	Bin Size	Temper- ature Code	Customer Id	PIN	Quick Code	Package Id	Delivery Employee Id	Shupper Id	Delivery Date/Time	Notificatio n Date/Time	Pickup Date/Time
sfior- 019	A01-01- 0234	A01	01	234	3	standard	183-62-3085	9999	1111	080400-001	183-62- 1085	111221234- AT001-	7/12/2000 8 05 22 PM	7/12/2000 8 10 06 PM	7/13/2000 5 43 25 PM

1312

Quick Code table

Quick Code
1114

1313

SBU Settings table

Load Position Master SBU Id	Door Configurat ion Code
A01	16 100

1314

Bin Movement table^(b)

Load Position Master Bin Id	Move- ment needed for Master Bin Id	Move- ment needed for Master Bin Id	Move- ment needed for Master Bin Id
16	-3	-4	-x

1315

FIG. 10C

TABLE "E0607860"

Master Bin by Movement table ⁽¹⁾

Load Position	Master Bin After Movement 0	Master Bin After Movement 1	Master Bin After Movement -1	Master Bin After Movement 2	Master Bin After Movement -2	Master Bin After Movement [x]
Bin Id	16	15	17	14	18	[x]

1316

CDC Outbound Package Cost Calculation table

CPD Shipper Id	Originator CDC Id	Destination CDC Id	Starting Weight Range	Ending Weight Range	Package Size	Cost
cpd	sflor-019	ncali-005	0	3	1	\$3.00

1317

FIG. 10D

Application listing

	Application Name	Application Server(s)
	ePD Billing and Maintenance Application	Corporate
	ePD Shipping Application	Retailer, RDC
	ePD Delivery Application	RDC, CDC
	ePD SBU Application	CDC

Program listing

Ref #	Program Name	Application
(310)	Pick List Report Program	ePD Shipping Application (retailer's instance)
(311)	Receive RDC Returns Shipment Data Program	ePD Shipping Application (retailer's instance)
(312)	Retailer Shipment Program	ePD Shipping Application (retailer's instance)
(313)	Receive RDC Returns Shipment Program	ePD Shipping Application (retailer's instance)
(314)	Retailer Shipment Adjustments Program	ePD Shipping Application (retailer's instance)
(315)	Retailer Package Creation Program	ePD Shipping Application (retailer's instance)
(316)	Receive Retailer Shipment Program	ePD Shipping Application (shipper's instance, origination RDC)
(317)	Receive RDC Reverse Shipment Data Program	ePD Shipping Application (shipper's instance, destination RDC)
(318)	RDC Shipment Program	ePD Shipping Application (shipper's instance, origination RDC)
(319)	Receive RDC Reverse Shipment Program	ePD Shipping Application (shipper's instance, destination RDC)
(320)	RDC Shipment Loading Program	ePD Shipping Application (shipper's instance, origination RDC)
(322)	Train Loading Program	ePD Shipping Application (shipper's instance, origination RDC)
(324)	Receive RDC Shipment Program	ePD Shipping Application (shipper's instance, destination RDC)
(326)	Local Market Sort Program	ePD Shipping Application (shipper's instance, destination RDC)
(328)	CDC Sort Program	ePD Shipping Application (shipper's instance, destination RDC)
(330)	Package Creation Program	ePD Delivery Application (shipper's instance, destination RDC)
(332)	Packing List Report Program	ePD Delivery Application (shipper's instance, destination RDC)
(334)	RDC Package Inspection Report Program	ePD Delivery Application (shipper's instance, destination RDC)
(336)	CDC Package Inspection Report Program	ePD Delivery Application (shipper's instance, destination RDC)
(338)	Packing Adjustment Program	ePD Delivery Application (shipper's instance, destination RDC)
(340)	Delivery Shipment Creation Program	ePD Delivery Application (shipper's instance, destination RDC)

FIG. 6

Ref #	Program Name	Application
(341)	RDC Returns Shipment Creation Program	ePD Delivery Application (shipper's instance, destination RDC)
(342)	Delivery Shipment Program	ePD Delivery Application (shipper's instance, destination RDC)
(343)	RDC Returns Shipment Data Transfer Program	ePD Delivery Application (shipper's instance, destination RDC)
(344)	Configuration Adjustments Report Program	ePD Delivery Application (shipper's instance, destination RDC)
(345)	Shipment Adjustments Report Program	ePD Delivery Application (shipper's instance, destination RDC)
(346)	Packing Materials Supply Program	ePD Delivery Application (shipper's instance, destination RDC)
(347)	Notification Update Program	ePD Delivery Application (shipper's instance, destination RDC)
(348)	Pickup Update Program	ePD Delivery Application (shipper's instance, destination RDC)
(349)	Billing Program	ePD Delivery Application (shipper's instance, destination RDC)
(350)	CDC Package Adjustment Program	ePD SBU Application
(352)	SBU Configuration Program	ePD SBU Application
(354)	Loading Guide Report Program	ePD SBU Application
(356)	Loading Program	ePD SBU Application
(358)	New Package Notification Program	ePD SBU Application
(360)	Notification Program	ePD SBU Application
(362)	Auto-call Program	ePD SBU Application
(364)	Auto-e-mail Program	ePD SBU Application
(366)	E-mail Error Checking Program	ePD SBU Application
(368)	Package Location Report Program	ePD SBU Application
(370)	Unloading Program	ePD SBU Application
(372)	Bin Positioning Program	ePD SBU Application
(374)	Re-open Program	ePD SBU Application
(376)	Quick Code Reset Program	ePD SBU Application
(378)	CDC Returns Program	ePD SBU Application
(380)	CDC Outbound Package Creation Program	ePD SBU Application
(382)	CDC Reverse Shipment Creation Program	ePD SBU Application
(384)	CDC Reverse Shipment Program	ePD SBU Application
(386)	CDC Reverse Shipment Maintenance Program	ePD SBU Application
(388)	RDC Returns Shipment Update Program	ePD Delivery Application (shipper's instance, destination RDC)

FIG. 11B

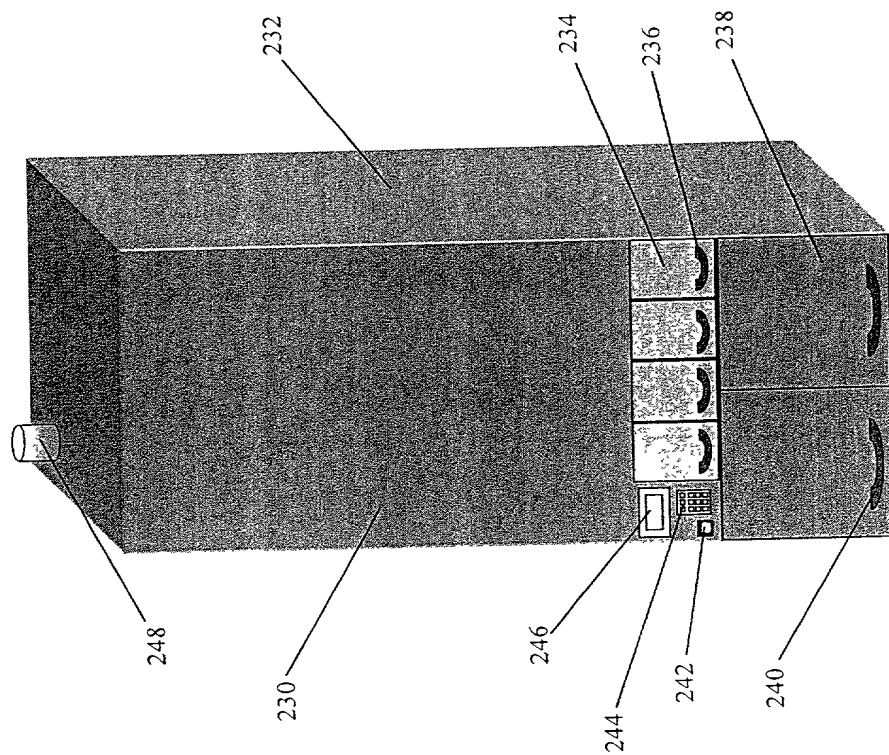


FIG 12 – SmartBin Unit (front external view)

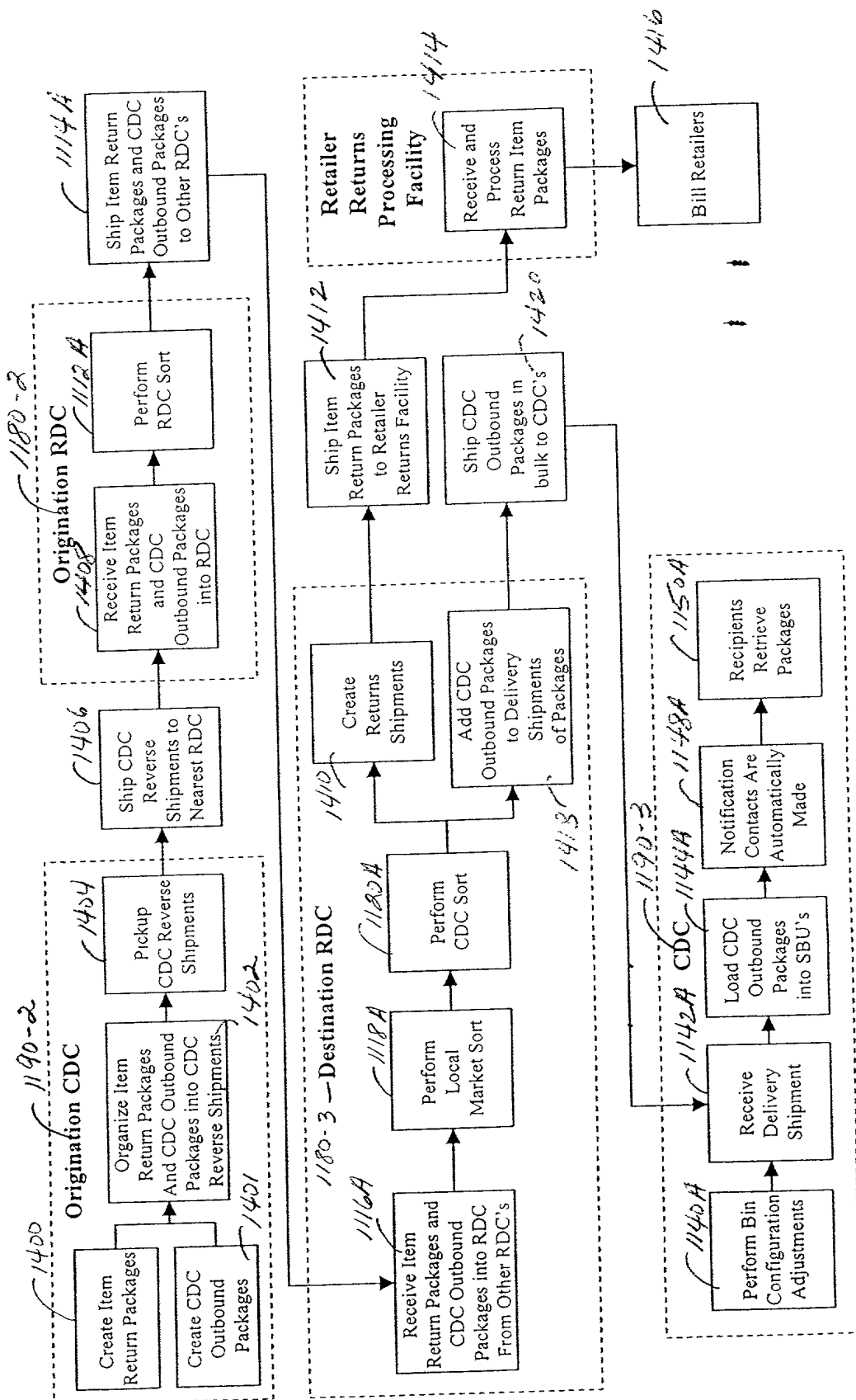


FIG. 13